

Putting Research to Work for Military Families



Focus:
Multiple
Branches

Exploring the Impact of a Pedometer on Body Composition and Physical Fitness in a Cohort of U.S. Military Medical Students: A Pilot Study

Lystrup, R., West, G. F., Ward, M., Hall, J., & Stephens, M. (2015). Exploring the impact of a pedometer on body composition and physical fitness in a cohort of U.S. Military medical students: A pilot study. *Military Medicine*, 180(1), 23-25. doi:10.7205/MILMED-D-14-00132

SUMMARY: Pedometry data of United States medical students at a military university were utilized to examine the impact of providing pedometers on the physical fitness of medical students. Few students reported meeting their 10,000 steps a day goal. Students who met this goal improved or maintained their fitness levels.

KEY FINDINGS:

- Thirteen percent of the students met the daily goal of 10,000 steps.
- Students who met this daily goal maintained or improved their aerobic fitness.
- Fifty-three percent of those who received pedometers and 46% of those who did not either improved or maintained their fitness during the study period (these rates were not significantly different from one another).
- When the students who met the daily goal were excluded, there was no difference between groups in fitness achievement over baseline.

IMPLICATIONS FOR PROGRAMS:

Programs could:

- Provide Service members and their families with recreation and fitness activities
- Promote physical fitness as a means of coping with the stresses of deployment for Service members and their families
- Educate Service members and their families about the benefits of consistent physical activity and healthy eating

IMPLICATIONS FOR POLICIES:

Policies could:

- Encourage the use of pedometers or other fitness trackers for Service members as a means to improve and maintain physical fitness
- Support programs that encourage military families to engage in physical fitness and healthy eating
- Recommend collaboration between DoD and community-based services to offer recreational activities to military families

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METHODS

- U.S. medical students at the Uniformed Services University of the Health Services were recruited.
- Forty-two percent of students were given a pedometer for the summer of their first year in medical school; other students were told to strive to accumulate a minimum of 10,000 steps per day.
- Students were asked to report their step data monthly via email.
- Participants completed fitness tests before and after pedometers were distributed.

PARTICIPANTS

- One hundred fifteen medical students participated (76% male).
- The majority of participants were between 21-25 years old (71%).
- Thirty-seven percent of participants were Air Force, 35% Army, and 26% Navy.

LIMITATIONS

- The sample was small and specialized, so findings may not generalize beyond this population.
- Aerobic score was treated as a binary variable which caused much information to be lost.
- Many participants reported that their pedometers did not function correctly, which may bias results.
- The fitness tests between the Service branches were different and may have had different ranges of improvement.

AVENUES FOR FUTURE RESEARCH

Future research could:

- Replicate these findings in a broader sample of Service members
- Use mobile fitness apps daily to more accurately track participants activity
- Assess other variables that may influence outcomes such as personality, history of physical fitness, and attitudes toward exercising

ASSESSING RESEARCH THAT WORKS



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